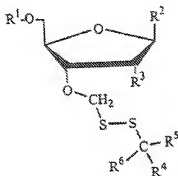


AMENDMENTS TO CLAIMS

The listing of claims below replaces all prior versions.

Claims 1-15 (canceled).

Claim 16 (original). A hydrocarbyldithiomethyl-modified compound comprising the formula:



or a salt thereof, wherein

R^1 is H, a protecting group, phosphate, diphosphate, triphosphate, or residue of a nucleic acid;

R^2 is a nucleobase;

R^3 is H, OH, or a protected form of OH; and

R^4 , R^5 and R^6 are together or separately H, hydrocarbyl, or a residue of a solid support.

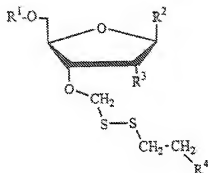
Claim 17 (original). The compound of claim 16 wherein R^4 , R^5 and R^6 together or separately further comprise a labeling group.

Claim 18 (original). The compound of claim 16 wherein R^4 , R^5 and R^6 comprise together or separately an electron donating or withdrawing function.

Claim 19 (original). The compound of claim 18 wherein said electron donating or withdrawing function contains a heteroatom selected from the group consisting of oxygen, nitrogen, sulfur, and silicon.

Claim 20 (original). The compound of claim 16 wherein R^4 , R^5 and R^6 are together or separately H, methyl, ethyl, isopropyl, t-butyl, phenyl, or benzyl and wherein either R^4 , R^5 and R^6 is modified with a labeling group.

Claim 21 (original). A compound comprising the Formula:



or a salt thereof, wherein

R^1 is H, a protecting group, a phosphate, diphosphate, or a triphosphate, or a residue of a nucleic acid;

R^2 is a nucleobase;

R^3 is H or OH, or a protected form of OH; and

R^4 is H or hydrocarbyl.

Claim 22 (original). The compound of claim 21 wherein R^4 is modified with a labeling group.

Claim 23 (original). The compound of claim 21 wherein R^3 comprises nitrogen.

Claim 24 (original). The compound of claim 21 wherein R^4 is covalently linked to a solid support.

Claims 25-124 (canceled).